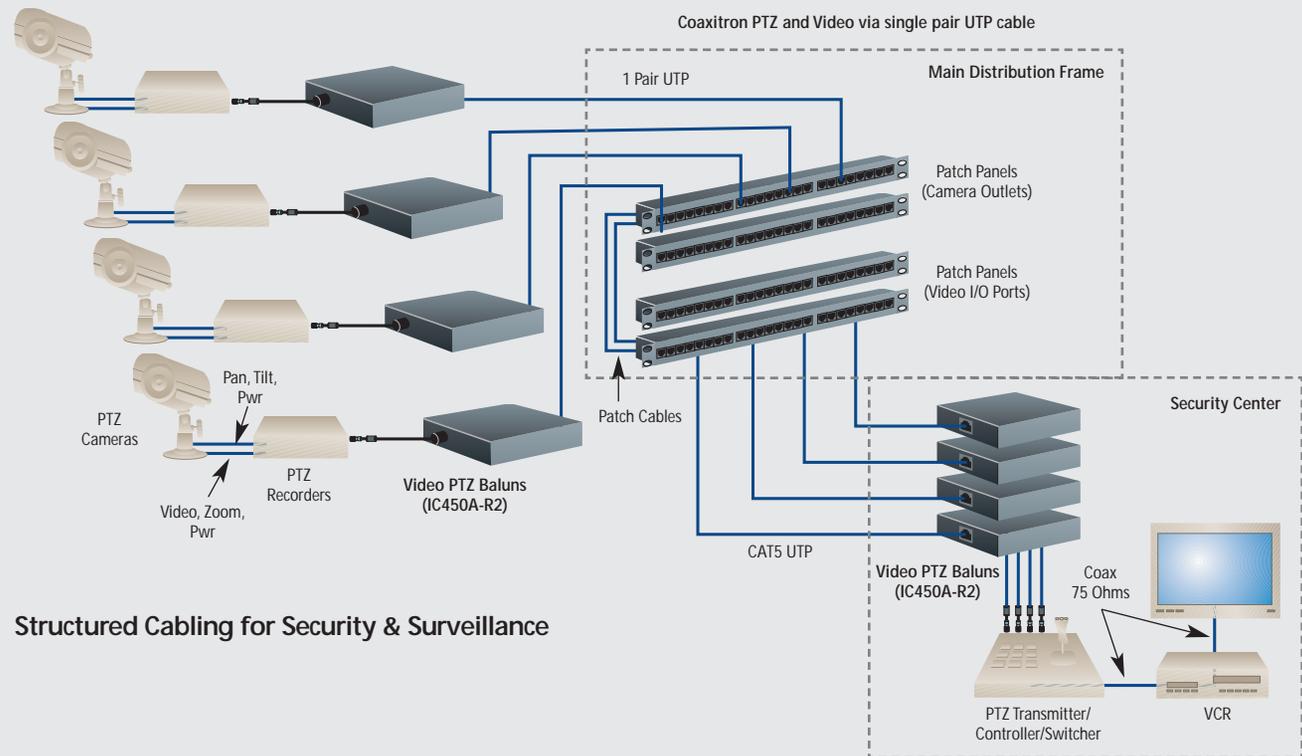## Video PTZ Balun

Use CAT3 or CAT5 twisted-pair cable instead of coax with your security or surveillance equipment.

FEATURES

- Works with Coaxitron™ and similar PTZ camera-control systems.
- Eliminates coax cable in PTZ closed-circuit TV surveillance systems.
- Works with Category 3 or Category 5 UTP cable.
- Used in pairs between PTZ controller and receiver.
- Maintains a steady video image while the system is idle.
- VELCRO® mounting pad.

Transmit PTZ and video with a single pair of CAT5 UTP cable.

Coaxitron PTZ and Video via single pair UTP cable

1 Pair UTP

Main Distribution Frame

Patch Panels (Camera Outlets)

Patch Panels (Video I/O Ports)

Pan, Tilt, Pwr

PTZ Cameras

Patch Cables

Security Center

PTZ Recorders

Video PTZ Baluns (IC450A-R2)

Video, Zoom, Pwr

CAT5 UTP

Video PTZ Baluns (IC450A-R2)

Coax 75 Ohms

PTZ Transmitter/ Controller/Switcher

VCR

Structured Cabling for Security & Surveillance

OVERVIEW

Eliminate the expense of using coaxial cable with your security systems. The Video PTZ Balun connects your security or surveillance equipment using CAT3 or CAT5 twisted-pair cable. It's compatible with Pelco™ Coaxitron™, Vicon™ Vicoax, Videoalarm™ Coaxlynx™, and other digital coax pan, tilt, and zoom (PTZ) security systems.

Perfect for campus and high-rise installations, the balun spans the following distances:
- With Category 3 cable:
  Color: 875 ft. (266.7 m);
  B&W: 980 ft. (298.7 m)
- With Category 5 cable:
  Color: 1250 ft. (381 m);
  B&W: 1400 ft. (426.7 m)

Used in pairs, the balun lets you integrate CCTV security and surveillance equipment into structured cabling systems. You can control PTZ devices from any convenient modular wall outlet to connect digital coax PTZ and video.

Use the baluns in your system, and you'll have less downtime and quicker moves, adds, and changes, as well as neater wiring and smaller cable costs.

With a single four-pair CAT 5 cable, you can pass up to four signals. And there's no visible picture distortion from crosstalk!

What's more, the balun helps your system maintain a steady video image when the system is idle.

Installing the balun is easy. It comes with a separate coax lead. A handy VELCRO® strip is also included for mounting the balun on the wall.

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TECH SPECS

Cable Required —
    Between Balun pairs: Unshielded twisted pair (UTP):
        Construction Standard: Category 3 or higher;
        Gauge: 24 AWG or lower;
        Termination: RJ-45 plugs;
        Pairs: 1 or more (2 wires used);
        Impedance: 100 ohms at 1 MHz;
        Maximum Capacitance: 20 pF/ft. (6.1 pF/m);
        Maximum Attenuation: 6.6 dB/1000 ft. (2 dB/km);
    To attached devices: Balun normally attaches to equipment directly or with included BNC M/M patch cable; if other cabling must be used, it must be standard 75-ohm RG59/U coaxial cable with a BNC connector on the Balun end, and a maximum of 25 ft. (7.6 m) of coax cabling is allowed for the entire end-to-end link
Compliance — FCC Class B, IC Class/classe B; CISPR Pub. 22
Compatibility — CCTV equipment for security and surveillance, NTSC, PAL, SECAM, Coaxitron, RS-232, RS-422, Manchester, 24 VAC, 20 mA
Devices Supported — CCTV cameras and Pan, Tilt, Zoom (PTZ) controllers supporting one video and one PTZ signal over the same coaxial cable; works with Pelco™ Coaxitron™, Vicon® Vicoax®, Videoalarm™ Coaxlynx™, and other digital coax Pan, Tilt, Zoom control systems
Transmission — Transparent to the user (no delay or video processing)

Impedance — Coaxial side: 75 ohms; UTP side: 100 ohms
Video Bandwidth — DC to 8 MHz
Maximum RF Input — 1.1 volts peak-to-peak at 60 Hz
Insertion Loss — Less than 2 dB over the DC-to-8-MHz frequency range
Return Loss — Greater than 15 dB over the DC-to-8-MHz frequency range
Common-Mode Rejection — Greater than 40 dB at 8 MHz
RJ-45 Pins Used — 7 (Ring) and 8 (Tip), reverse-polarity-sensitive
Maximum Distance — With Category 3 cable: 875 ft. (266.7 m) for color video, 980 ft. (298.7 m) for black & white video; With Category 5 cable: 1250 ft. (381 m) for color video, 1400 ft. (426.7 m) for black & white video
Connectors — (1) RJ-45 female, (1) BNC female; (1) BNC M/M coax cable included
Temperature Tolerance — Operating: 32 to 131˚F (0 to 55˚C); Storage: -4 to +185˚F (-20 to +85˚C)
Humidity Tolerance — Up to 95% noncondensing
Enclosure — Fire-retardant plastic with included optional VELCRO® mounting material
Size — 2.4"H x 2.3"W x 1"D (6.1 x 5.8 x 2.5 cm)
Weight — With included cable: 4.2 oz. (119.1 g); Without included cable: 3 oz. (85.1 g)

BNC-F   *IC450A-R2*

WHAT'S INCLUDED

✦ (1) Video PTZ Balun.
✦ (1) BNC male-to-male adapter cable.
✦ (1) User's manual.

NOTE: The Video PTZ Baluns must be used in pairs.

Item	Code
Video PTZ Balun	**IC450A-R2**
Remember to order cable…	
CAT5 UTP, 4-pair, RJ-45 M/M	**EYN737MS-MM**

Why Buy From Black Box? Exceptional Value. Exceptional Tech Support. Period.

Recognize any of these situations?

• **You wait more than 30 minutes to get through to a vendor's tech support.**

• **The so-called "tech" can't help you or gives you the wrong answer.**

• **You don't have a purchase order number and the tech refuses to help you.**

• **It's 9 p. m. and you need help, but your vendor's tech support line is closed.**

According to a survey by Data Communications magazine, 90% of network managers surveyed say that getting the technical support they need is extremely important when choosing a vendor. But even though network managers pay anywhere from 10 to 20% of their overall purchase price for a basic service and support contract, the technical support and service they receive falls far short of their expectations—and certainly isn't worth what they paid.

At Black Box, we guarantee the best value and the best support. You can even consult our Technical Support Experts before you buy if you need help selecting just the right component for your application.

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